

IN THE CLAIMS

Claims 42-51 are added herein. All pending claims are reproduced below.

- 1 1. (original) A wireless communications system comprising:
- 2 a transmitter circuit for transmitting information and generating a random
- 3 identifier code having randomness that is derived from tolerances
- 4 associated with components included in the transmitter circuit,
- 5 wherein the random identifier code is included in the transmitted
- 6 information.
- 1 2. (original) The system of claim 1 wherein the transmitter circuit includes a
- 2 microcontroller unit having a first I/O port, wherein in response to a code generating
- 3 event being detected at the first I/O port, a process running in the microcontroller unit
- 4 generates the random identifier code.
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- 1 3. (original) The system of claim 2 wherein the microcontroller unit includes
- 2 a ROM for storing a set of instructions for carrying out the process.
- 1 4. (original) The system of claim 2 wherein the microcontroller unit includes
- 2 a RAM for storing the random identifier code generated by the process.
- 1 5. (original) The system of claim 2 wherein the microcontroller unit includes
- 2 an N-bit timer having an output value that is read in response to the code generating event
- 3 being detected at the first I/O port.
- 1 6. (original) The system of claim 5 wherein the output value of the N-bit
- 2 timer is the random identifier code.
- 1 7. (original) The system of claim 5 wherein the output value of the N-bit
- 2 timer is applied to a random code generator algorithm stored in a ROM of the
- 3 microcontroller unit, the random code generator algorithm for generating the random
- 4 identifier code.

1 8. (original) The system of claim 1 wherein the transmitter circuit further
2 includes a storage area for storing the random identifier code.

1 9. (original) The system of claim 1 wherein the transmitter circuit is included
2 in one of a wireless mouse, a wireless keyboard, a wireless joystick, a wireless trackball,
3 a wireless video camera and a receiver unit for receiving communications of a wireless
4 device.

1 10. (original) A wireless communications system comprising:
2 a transceiver circuit for transmitting and receiving information, and for
3 generating a random identifier code having randomness that is derived
4 from tolerances associated with components included in the
5 transceiver circuit, wherein the random identifier code is included in
6 the transmitted information.

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1 11. (original) The system of claim 10 wherein the transceiver circuit includes
2 a microcontroller unit having a first I/O port, wherein in response to a code generating
3 event being detected at the first I/O port, a process running in the microcontroller unit
4 generates the random identifier code.

1 12. (original) The system of claim 11 wherein the microcontroller unit
2 includes a ROM for storing a set of instructions for carrying out the process.

1 13. (original) The system of claim 11 wherein the microcontroller unit
2 includes a RAM for storing the random identifier code generated by the process.

1 14. (original) The system of claim 11 wherein the microcontroller unit
2 includes an N-bit timer having an output value that is read in response to the code
3 generating event being detected at the first I/O port.

1 15. (original) The system of claim 14 wherein the output value of the N-bit
2 timer is the random identifier code.

1 16. (original) The system of claim 14 wherein the output value of the N-bit
2 timer is applied to a random code generator algorithm stored in a ROM of the
3 microcontroller unit, the random code generator algorithm for generating the random
4 identifier code.

1 17. (original) The system of claim 10 wherein the transceiver circuit further
2 includes a storage area for storing the random identifier code.

1 18. (original) The system of claim 10 wherein the transceiver circuit is
2 included in one of a wireless mouse, a wireless keyboard, a wireless joystick, a wireless
3 trackball, a wireless video camera and a receiver unit for receiving communications of a
4 wireless device.

1 19. (original) A method for distinguishing transmissions of a wireless
2 transmitter, the method comprising:

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3 generating a random identifier code having randomness that is derived from
4 tolerances associated with components included in the wireless
5 transmitter; and

6 embedding the random identifier code in the transmissions of the wireless
7 transmitter.

1 20. (original) The method of claim 19 further comprising:

2 storing the random identifier code in a storage area in the wireless transmitter.

1 21. (original) The method of claim 19 wherein the wireless transmitter
2 includes a microcontroller unit having an I/O port, and the generating step is responsive
3 to a code generating event being detected at the I/O port.

1 22. (original) The method of claim 21 wherein the microcontroller unit
2 includes a ROM for storing a set of instructions, and the generating step is carried out
3 pursuant to the instructions.

1 23. (original) The method of claim 19 wherein the wireless transmitter is
2 included in one of a wireless mouse, a wireless keyboard, a wireless joystick, a wireless
3 trackball, a wireless video camera and a receiver unit for receiving communications of a
4 wireless device.

1 24. (original) A method for distinguishing transmissions of a transceiver
2 included in a wireless communications system, the method comprising:

3 generating a random identifier code having randomness that is derived from
4 tolerances associated with components included in the transceiver; and
5 embedding the random identifier code in the transmissions of the transceiver.

1 25. (original) The method of claim 24 further comprising:

2 storing the random identifier code in a storage area in the wireless transmitter.

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1 26. (original) The method of claim 24 wherein the wireless transmitter
2 includes a microcontroller unit having an I/O port, and the generating step is responsive
3 to a code generating event being detected at the I/O port.

1 27. (original) The method of claim 26 wherein the microcontroller unit
2 includes a ROM for storing a set of instructions, and the generating step is carried out
3 pursuant to the instructions.

1 28. (original) The method of claim 24 wherein the transceiver is included in
2 one of a wireless mouse, a wireless keyboard, a wireless joystick, a wireless trackball, a
3 wireless video camera and a receiver unit for receiving communications of a wireless
4 device.

1 29. (original) A computer-readable medium having instructions stored thereon
2 which, when executed by a processor included in a wireless communications system,
3 cause the processor to perform the steps of:

4 responsive to a code generating event, receiving data produced by the wireless
5 communications system, wherein the received data has randomness
6 that is derived from tolerances associated with components included in
7 the wireless communications system;
8 generating a random identifier code based on the received data; and
9 storing the random identifier code in a storage area included in the wireless
10 communications system.

1 30. (original) The computer-readable medium of claim 29, wherein the steps
2 performed by the processor further comprise:
3 embedding the random identifier code in transmissions of the wireless
4 communications system.

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1 31. (original) The computer-readable medium of claim 29 wherein the
2 wireless communications system includes a microcontroller unit having an I/O port, and
3 the code generating event is detected at the I/O port.

1 32. (original) A method for distinguishing transmissions of a wireless
2 communications device, wherein the wireless communications device has a
3 microcontroller unit having an I/O port coupled to an RC circuit having an output voltage
4 that can be monitored by the I/O port, the method comprising:

5 responsive to a triggering event, commanding the I/O port of the
6 microcontroller unit from a high impedance state to a low voltage state
7 thereby discharging the RC circuit;

8 resetting and starting an N-bit timer of the microcontroller unit, the N-bit
9 timer having an output;

10 commanding the I/O port from the low voltage state to the high impedance
11 state thereby charging the RC circuit;

12 monitoring the output voltage of the RC circuit at the I/O port;

13 responsive to the output voltage at the I/O port reaching a threshold voltage,
14 reading the output of the N-bit timer;
15 generating from the read output of the N-bit timer a random identifier code;
16 and
17 embedding the random identifier code in transmissions of the wireless
18 communications device.

1 33. (original) A wireless communications system comprising:

2 a transmitter circuit for transmitting information and generating a random
3 identifier code having randomness that is derived from tolerances
4 associated with components included in the transmitter circuit,
5 wherein the random identifier code is included in the transmitted
6 information; and

7 a receiver circuit for, responsive to received information having the random
8 identifier code, reporting that received information to a receiver host.

1 34. (original) An electronic communication system for generating a random
2 identifier code, the system comprising:

3 a first circuit for communicating information and generating a random
4 identifier code having randomness that is derived from tolerances
5 associated with components included in the first circuit; and

6 a second circuit communicatively coupled to the first circuit, the second
7 circuit for receiving the information communicated by first circuit,
8 wherein the information includes the random identifier code.

1 35. (original) The system of claim 34 wherein the first circuit and the second
2 circuit each have a storage area for storing random identifier code.

1 36. (original) A method for associating a transmitter with a receiver, wherein
2 the transmitter and the receiver are part of a wireless communications system, the method
3 comprising:

4 generating a random identifier code having randomness that is derived from
5 tolerances associated with components included in the wireless
6 communications system; and

7 assigning the random identifier code to the transmitter and the receiver
8 thereby creating a transmitter-receiver pair.

1 37. (original) The method of claim 36 further comprising:

2 storing the random identifier code in a storage area in the transmitter; and
3 storing the random identifier code in a storage area in the receiver.

1 38. (original) A wireless communications transmitter system comprising:

2 a transmitter circuit means for transmitting information and generating a
3 random identifier code having randomness that is derived from
4 tolerances associated with components included in the transmitter
5 circuit means, wherein the random identifier code is included in the
6 transmitted information.

1 39. (original) A wireless communications system comprising:

2 a transceiver circuit means for transmitting and receiving information, and for
3 generating a random identifier code having randomness that is derived
4 from tolerances associated with components included in the
5 transceiver circuit means, wherein the random identifier code is
6 included in the transmitted information.

1 40. (original) A method for distinguishing transmissions of a wireless
2 transmitter means, the method comprising:

3 generating a random identifier code having randomness that is derived from
4 tolerances associated with components included in the wireless
5 transmitter means; and
6 embedding the random identifier code in the transmissions of the wireless
7 transmitter means.

1 41. (original) A method for distinguishing transmissions of a transceiver means
2 included in a wireless communications system, the method comprising:

3 generating a random identifier code having randomness that is derived from
4 tolerances associated with components included in the transceiver means;
5 and
6 embedding the random identifier code in the transmissions of the transceiver
7 means.

1 42. (new) A wireless communications system comprising:

2 a receiver circuit for receiving information and detecting a random identifier code
3 having randomness that is derived from tolerances associated with
4 components included in a communication circuit, wherein the random
5 identifier code is included in the received information.

1 43. (new) The system of claim 42, wherein the communication circuit comprises a
2 transmitter for sending the received information and for including the random identifier code
3 in the information.

1 44. (new) The system of claim 42, wherein the communication circuit comprises
2 the receiver circuit.

1 45. (new) The system of claim 44 wherein the receiver circuit includes a
2 microcontroller unit having a first I/O port, wherein in response to a code generating
3 event being detected at the first I/O port, a process running in the microcontroller unit
4 generates the random identifier code.

1 46. (new) The system of claim 45 wherein the microcontroller unit includes a
2 ROM for storing a set of instructions for carrying out the process.

1 47. (new) The system of claim 45 wherein the microcontroller unit includes a
2 RAM for storing the random identifier code generated by the process.

1 48. (new) The system of claim 45 wherein the microcontroller unit includes an
2 N-bit timer having an output value that is read in response to the code generating event
3 being detected at the first I/O port..

1 49. (new) The system of claim 48 wherein the output value of the N-bit timer
2 is the random identifier code.

1 50. (new) The system of claim 48, further comprising a ROM for storing a set
2 of instructions for carrying out the process and wherein the output value of the N-bit
3 timer is applied as an input to the process stored in the ROM.

1 51. (new) The system of claim 42, wherein the receiver circuit is included in a
2 device that possess the ability to transmit and receive signals via wireless communication
3 technology, the device associated with one of a computer motherboard, a wireless mouse, a
4 wireless keyboard, a wireless joystick, a wireless trackball, and a wireless video camera.

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